ABSTRACT OF THE DISCLOSURE

A gas inflation/evacuation system and sealing system for use with occlusive devices such as occlusive balloons in vascular procedures. The gas inflation/evacuation system is removably connectible to a proximal portion of a guidewire assembly and includes an evacuation system to evacuate the guidewire assembly and an inflation system for introducing a biocompatible gas under pressure into the guidewire assembly to inflate an occlusive device a plurality of times. A sealing system is also removably connectible to the proximal portion of the guidewire assembly and selectively seals an extended sealable section at the proximal portion of the guidewire assembly at one of a plurality of separate locations to form an airtight seal of the guidewire assembly. Each time a deflation of the occlusive device is desired in order to reestablish blood flow to the vessel downstream of the occlusive device, the extended sealable section at the proximal portion of the guidewire assembly preferably is cut distal to the location of the last seal to quickly deflate the occlusive device.

GAS INFLATION/EVACUATION SYSTEM AND SEALING SYSTEM FOR GUIDEWIRE ASSEMBLY HAVING OCCLUSIVE DEVICE

PARTS LIST

20	guidewire occlusion system	56	protective polymer coating
22	guidewire assembly	60	sealing system
		60a	sealing system
24	proximal portion	62	first aperture
26	distal portion	64	second aperture
28	extended sealable section	66	crimping mechanism
		66a	crimping
30	main body portion		mechanism
32	occlusive balloon	68	sealing mechanism
		68a	sealing mechanism
34	lumen		
		70	passageway
35	channel or hole		
		72	handle
36	proximal end		
		74	pivotable cam
38	flexible tip		arrangement
40	distal end	76	roller
42	tapered portion	78	roller
44	laser weld	80	gas inflation/ evacuation system
46	Ni-Ti or stainless steel sleeve	80a-f	gas inflation/ evacuation systems
48	laser weld	82	conduit
50	crimp	84	valve arrangement
52	proximal tip coil	86	evacuation syringe
54	distal tip coil		

88	inflation syringe	122	conduit
90	pressure gauge	126	crimp body
92	evacuation syringe plunger	128	handle return
		132	sealing body
94	inflation syringe plunger	138	port
96	assembly body	139	interconnect fitting
98	inflation syringe plunger	140	hose
98a-c	inflation syringe plungers	141	coupling
100	evacuation syringe plunger	142	inflation manifold
102	support structure	143	tee connector
104	fingergrip bore	144a-c	check valves
106	fingergrip	145	coupling
108	valve arrangement	146	connector
110a-c	interconnect fittings	150	common housing
		151	top housing half
111	one-way check valve	152	structure
112	evacuation syringe	153	bottom housing half
113	one-way check valve	154	fingergrip
		156	knob
114	inflation syringe		
114a-c	inflation syringes	158	sealant material
		160	conduit aperture
118	assembly body	162	plugging mechanism
120	knob		

164	sealant confinement layer
166	operational O-ring
168	sealant O-ring
170	sealed chamber
171	venting duct
173	sealed handling port
174	biocompatible packaging
175	atmosphere control system